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ABSTRACT

Instruments and questionnaires developed for gathering data on students and the schools they attend should be assessed. This was done for those instruments and questionnaires used in the reading assessment of the first year of the Minnesota Educational Assessment Program. General findings are: (1) Student socioeconomic status is strongly associated with reading performance; (2) Opinion ratings showed no relationship to performance; and (3) Questions probing the content of student attitudes toward school showed a significant relationship with student reading performance. It is pointed out that questions, regardless of whether they are addressed to students, teachers, or principals, should be as specific as possible so that complexities of attitudes, aspirations, or behavior may become apparent. It is concluded that greater attention to instrumentation can provide assessment results of greater utility. (Author/BJG)

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The Importance of Assessment Instrument Development

by

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As a Part of the Presentation
Enhancing the Utility of Assessment Results

at

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Statewide educational assessment may be characterized in a number of ways. An assessment program may test all students or a sample of students. It may test in one subject area or in many. It may gather a great deal of background information on the students and the schools they attend or it may gather no background data at all.

This presentation regards assessment as the testing of a sample of students in one subject area and the gathering of data concerning students and their schools via the administration of questionnaires. The main purpose of this kind of an assessment is to obtain an estimate of the general level of performance of students in a subject area and to relate performance to the various background data gathered.

The focus of this paper is the importance in a statewide educational assessment of the instruments or questionnaires developed for gathering data on students and the schools they attend. The results of the Reading Assessment of the first year of the Minnesota Educational Assessment Program[1] illustrate the importance of the attention paid to instrumentation. Three general findings relating to assessment instrument or questionnaire development emerge from the results.

1. Student Socioeconomic Status is strongly associated with Reading Performance. The two variables constituting the socioeconomic status index were parent education and father's occupation. These two variables had also been used for the same index in the International Educational Assessment in Reading.[2] In that study the SES index accounted for approximately 15 percent of the variation in performance between schools. In the Minnesota study, the original index accounted for approximately 13 percent.

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[1]Full results are reported in An Analysis of the Results of the Minnesota Educational Assessment Program Year 01 Reading, available from the Minnesota Department of Education, St. Paul, Minnesota.

[2]Robert L. Thorndike, Reading Comprehension Education in Fifteen Countries New York, John Wiley and Sons, 1973.

In the context of this presentation, the importance of the similarity of these results lies in the implications for instrumentation. Using the results of past research such as the International Assessment, a state assessment program can include in its instruments questions that have shown to be related to performance or to have separated students into meaningful groups.

2. Opinion ratings showed no relationship to performance. Ratings by principals of the adequacy of their school plant and staff and of the competence of their teachers in conducting remedial reading programs showed no relationship to performance. More objective measures of school characteristics such as library quality and teacher experience are needed if one purpose of assessment will continue to be to relate school characteristics to student performance.

An alternative strategy exists for assessment programs that wish to continue using principal opinion ratings. One set of observers, trained to make a rating using one standard or criterion as a reference, could rate schools on characteristics such as library quality. This use of trained observers would eliminate the problem that arises when each principal has a different reference point for judging quality. It would enable an assessment program to utilize ratings as well as objective data, and to compare the two.

Students in the Minnesota Assessment rated themselves on their general intellectual ability and reading ability. They also were asked if they had past reading difficulty and if they had participated in a special reading program. The questions on difficulty and program showed a stronger association with performance than those on ability. Again, the problem appears to be one of a point of reference, this time for the student. When asked about his ability, he uses his peers as a reference. Asking about participation in a special program requires no such comparison, and therefore avoids the problem of varying points of reference.

3. Questions probing the content of attitude toward school showed a significant relationship with student reading performance. Students were asked if they would skip school if they could do so without penalty and if they thought the principal and teachers ran the school fairly. These two variables showed a statistically significant relationship to performance, whereas the more general question "How do you like school?" did not. The implication for assess ment instrumentation is that questions, whether they be asked of students, principals, or teachers, should be as specific as possible so that the complexities of attitude, aspirations, or behavior may become apparent.

In summary, the results of this statewide assessment show that (1) past research can provide relevant data for instrumentation; (2) school characteristics as measured by opinion ratings show little relationship to reading performance; and (3) specific questions which attempt to uncover the complexity of student attitudes show a relationship to performance. Attention to instrumentation can give more meaningful assessment results, and hence, assessment results of greater utility.